SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-RAP1A antibody

Catalog Number: SL22933R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	RAP1A
Immunogen:	KLH conjugated synthetic peptide derived from human RAP1A: 1-100/184
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Mouse, Rat, (predicted: Human, Chicken, Dog, Pig, Cow, Rabbit, Sheep)
Predicted MW.:	21kDa
Subcellular Location:	cytoplasmic The cell membrane
Background:	This gene encodes a member of the Ras family of small GTPases. The encoded protein undergoes a change in conformational state and activity, depending on whether it is bound to GTP or GDP. This protein is activated by several types of guanine nucleotide exchange factors (GEFs), and inactivated by two groups of GTPase-activating proteins (GAPs). The activation status of the encoded protein is therefore affected by the balance of intracellular levels of GEFs and GAPs. The encoded protein regulates signaling pathways that affect cell proliferation and adhesion, and may play a role in tumor malignancy. Pseudogenes of this gene have been defined on chromosomes 14 and 17. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2014]. **Function:** Induces morphological reversion of a cell line transformed by a Ras oncogene. Counteracts the mitogenic function of Ras, at least partly because it can interact with Ras GAPs and RAF in a competitive manner. Together with ITGB1BP1, regulates KRIT1 localization to microtubules and membranes.

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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	Plays a role in nerve growth factor (NGF)-induced neurite outgrowth. Plays a role in the regulation of embryonic blood vessel formation. Involved in the establishment of basal endothelial barrier function. May be involved in the regulation of the vascular endothelial growth factor receptor KDR expression at endothelial cell-cell junctions. **Subunit:** Found in a complex, at least composed of ITGB1BP1, KRIT1 and RAP1A. Interacts (active GTP-bound form preferentially) with KRIT1 (via C-terminus FERM domain); the interaction does not induce the opening conformation of KRIT1. In its GTP-bound form interacts with PLCE1 and RADIL. Interacts with SGSM1, SGSM2 and SGSM3. Interacts (via GTP-bound active form) with RAPGEF2 (via Ras-associating domain) **Subcellular Location:** Cell membrane; Lipid-anchor. Cytoplasm. Cytoplasm, perinuclear region. Cell junction. Early endosome. Note=Recruited from early endosome to late endosome compartment after nerve growth factor (NGF) stimulation. Localized with RAPGEF2 at cell-cell junctions. Colocalized with RAPGEF2 in the perinuclear region. **Similarity:** Belongs to the small GTPase superfamily. Ras family. **Database links:** **Entrez Gene:** 5906 Human **Entrez Gene:** 109905 Mouse **Entrez Gene:** 295347 Rat Omim: 179520 Human **SwissProt:** P62834 Human **SwissProt:** P62835 Mouse **SwissProt:** P62836 Rat **Unigene:** 190334 Human **Unigene:** 458171 Mouse **Unigene:** 106321 Rat RAP1A is a member of the RAS oncogene family and plays an important role in regulating cell proliferation and adhesion. Studies have found that Rap1 and its regulator SPA-1 play a role in the occurrence and development of many malignant Tumours. Localized in cytoplasm and cell membrane.

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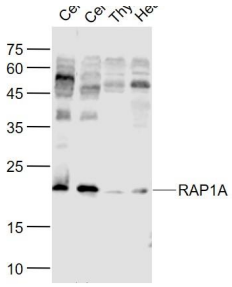
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[VALIDATION IMAGES]



Sample:
Lane 1: Cerebrum (Mouse) Lysate at 40 ug
Lane 2: Cerebrum (Rat) Lysate at 40 ug
Lane 3: Thymus Rat) Lysate at 40 ug
Lane 4: Heart (Rat) Lysate at 40 ug
Primary: Anti-RAP1A (SL22933R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 23 kD
Observed band size: 23 kD

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